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it may appear to touch human life and practice; and, indeed, when we come to practice, may we not call every one an Idealist? for thought, desire, volition, are exercised in every-day life solely upon the immediate objects of experience, the things we see and touch, and never have the slightest reference to the much-debated "thing-in-itself."

That Berkeley's Idealism is the final philosophy, no one who really understands Berkeley can for a moment admit. In his "Siris" we find gleams of a coming light, which Berkeley himself was not prepared for. But the weakness of Berkeleianism does not lie in the direction of the objections cited in the foregoing pages; and all objectons, made from such a stand point, are powerless, as directed against the truth and not the error of Berkeley's system.

A NEW THEORY OF GENERAL IDEAS.

BY PAYTON SPENCE.

It is not my intention to revive that hopeless discussion of Realism, Conceptualism, and Nominalism, which centuries of speculation and disputation have transmitted to us in so confused and unsettled a state. Nevertheless, I propose, in this article, to discuss the subject of general ideas and the significance of general terms; and I feel justified in doing so by the fact that there is an explanation of those perplexing subjects which has, thus far, escaped the attention of investigators—an explanation which is more satisfactory to my mind than any other with which I am acquainted, not excepting that of Kant, which can hardly be classed with either Realism, Conceptualism, or Nominalism.

Of all the theories of general ideas with which I am familiar, I cannot regard any one as true. Realism seems to be abandoned in modern times; and while Conceptualism and Nominalism both have their champions at the present day, yet the very fact that there are defenders of both, after so many centuries of investigation and disputation, raises a presumption that there is something radically defective in both; and this presumption is favored by the fact that nobody is entirely satisfied with either of those theories, even as presented by its ablest advocates.

If Nominalism still has its defenders, it is because they do not clearly set before their minds what it is they are required to ascertain. They are required to find out what mental phenomena general terms stand for; or into what we must translate them if we wish to ascertain their real significance. For instance, when we say *man*, what do we mean? Man, as a word, is, of course, merely a sign, a representative of some mental fact, movement, or process; and, hence, when I wish to point out its meaning—to translate it into its real significance—I must not substitute another sign for it. That would be like giving the Latin name for the English one, and saying that *man* means *homo;* or it would be like giving a verbal definition of the word, man. Now, this is what the Nominalists do, some in a less obvious way, perhaps, than others; and this is the hidden reason why neither themselves nor anybody else is satisfied with their work. The following, for instance, is Hamilton's defence of Nominalism, and it is substantially that of Berkeley and Hume: "We cannot represent to ourselves the class *man* by any equivalent notion or idea. All that we can do is to call up some individual image, and consider it as representing, though inadequately representing, the generality."[1] Now, if we merely use that "image" as the representative of something else, we virtually make it, like the word man itself, merely a sign; and hence we are no nearer the solution of the difficulty than when we started. That something —that "generality"—is just the thing that we are in search of; and, when we find it, we get the real significance of the word *man* —we get the mental fact, movement, or process of which the word man and the Nominalist's "individual image" of a man are merely representatives.

On the other hand, if Conceptualism has its defenders, it is because they do not use the word conception in its ordinary acceptation, or in any sharply defined sense. A conception, as ordinarily understood, "is a notion of past sensations, or of objects of sense that we have formerly perceived."[2] It is a reproduction in imagination of sensations or perceptions. This ordinary understanding of the word carries with it the idea that a conception is something definite and determinate, and that therefore, whenever an effort to conceive a thing fails to attain this determinateness, it fails to become a real conception—the labor is an abortion; yet the effort—the mental movement or process—while valueless as a conception, may still, as we shall hereafter see, be as easily handled by the mind as a conception, and may be of equal value as an element of thought. The following quotation is given by Hamilton as evidence of Locke's Conceptualism. In the above understanding of the word conception, however, Locke's "general idea" is not a conception, whatever else it may be. "Does it not require some pains and skill to form the general idea of a triangle (which is yet none of the most abstract, comprehensive, and difficult), for it must be neither oblique or rectangle, neither equilateral, equicrural, nor scalenon; but all and none of these at once. In effect, it is something imperfect that cannot exist; an idea wherein some parts of several different and inconsistent ideas are put together."[1]

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[1] Hamilton's "Lectures," p. 477.

[2] Stewart.

It does not in the least help us out of the difficulty with general terms to say, as some have done, that they are only abbreviated definitions; for this only shifts the difficulty from the former to the latter, and we find ourselves just as much embarrassed in our endeavors to ascertain the real significance of the definitions as of the general terms. If the definition of a general term is made as general as the term itself, it is necessarily as inconceivable as the latter.

We must not pass unnoticed Kant's interpretation of general ideas, particularly as his and the one that I shall presently give trench somewhat upon each other in one respect, although, in another, they are diametrically the opposite of each other. The first of the following extracts is taken from Dr. Stirling's translation of the "Critique"; the second is from his reproduction of the "Critique"; and the third is from a note in the reproduction, in which Dr. Stirling evidently adopts Kant's explanation of general ideas.

"I set down five points one after the other, thus, ...; what I have is a picture or representation (figure, image) of the number five. But if I think just *a* number, any number at all—let it be five, or let it be a hundred—then this thinking is rather the conception of a method toward the picture of some sum under a certain notion than this picture itself, which picture, in this latter case, it would hardly be possible to realize and compare with the notion. This idea, now, of a general process of the imagination for providing a notion with its corresponding picture or image, I call the schema of the notion."[1]

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[1] Hamilton's "Lectures," pp. 479, 480.

"The general notion triangle is simply a conceived formula whereby you can construct a type, but it is itself a schema, for it is no single form—rather it is an infinitude of forms. . . . So with the general notions, dog, horse, man, etc.: these are not types, but schemata. The type is a single image or figure set up by the empirical imagination, whereas the schema is an absolutely general formula for the production of a whole family of types."[2]

"Kant is here seen to make an easy end of our modern nominalistic quibbling. . . . Surely it is common sense to see that a general idea involves in imagination only a schema, and that a schema there is not a type, but a general receipt for a whole family of types."[3]

The slight resemblance and the vast difference between Kant's interpretation of the subject and my own will be more intelligible to the reader when my own shall have been presented. This much, however, I will say here, that, while a general term is a sign or symbol of a mental *process*—a *formula*, if you choose—yet it is not a process "for providing a notion with a corresponding picture or image," nor is it a "formula whereby you can construct a type," nor a "formula for the production of a whole family of types," nor a "receipt for a whole family of types;" but it is a procedure, a *process*, the essential feature of which is the *destruction* (not the *construction* or *production*) of all types, figures, images, perceptions, and conceptions—the *reduction* of the *determinate* to the *indeterminate*—the conceivable thought to one of its inconceivable elements; it is a process of making *forms* (pictures, images, figures, types, perceptions, and conceptions) *formless*—of taking out the *particular* and special and *leaving* the *general*—of removing the positive and leaving the negative element of thought. It is, in brief, a process of *analysis*, not one of *synthesis*.

There can be no better evidence that the truth has not been reached in reference to general terms and their significance than the vagueness and confusion with which they have been treated even by those who are regarded as among our most profound thinkers. When a writer of ordinary ability understands a subject, he usually finds no difficulty in making his understanding of it intelligible to others; and certainly it is an easy matter for him to explain his own views so clearly that others of equal ability with himself shall not put diametrically opposite interpretations upon what he has written. Yet we find Hamilton accusing Locke of maintaining "the doctrine of Conceptualism in its most revolting absurdity,"[1] while Bain says that "Locke is substantially a Nominalist."[2] Again, Hamilton, on one page, classes Reid with the Conceptualists Locke and Brown,[3] on another he inclines to put him with the Nominalist Berkeley,[4] and on a third he passes him over as extremely "wavering and ambiguous;"[5] but Bain says that Reid's position coincides very nearly with Conceptualism.[6] Again, Bain says of Hamilton, that "in some parts of his writings he expresses the nominalistic view with great exactness, while in others, and in his Logical system generally, he admits a form of Conceptualism."[7]

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[1] Stirling's "Text-book to Kant," pp. 250, 251.

[2] Ibid., p. 89.

[3] Ibid., pp. 89, 90.

One cause, perhaps, of the confusion of thought on the subject of general terms and their significance is our symbolical thinking, or the habit which the mind gradually acquires of thinking by signs, or by fragments of images or conceptions, instead of those images or conceptions themselves. For instance, the words *a horse* signify, or are the signs of, a conception of a horse—a full and complete image of a particular horse. But the tendency of the mind is to drop all unnecessary encumbrances, and to take the easiest and shortest road to the end aimed at; and hence we drop first one and then another of the special characteristics of that conception of a horse, until, finally, when we say *a horse*, there flashes into the mind merely a very small fragment of that conception, such as the head, or even a part only of the head, as a representative of the whole image; and so, when we say *a cow*, or *a pig*, only a pair of horns, or a twisted tail, may come before the mind as a representative of the whole animal. But this is not all;

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[1] Hamilton's "Lectures," p. 479.

[2] Bain's "Mental Science," Append., p. 27.

[3] "Lectures," 476.

[4] Ibid., 479.

[5] Ibid., 480.

[6] Bain's "Mental Science," Append., p. 29.

[7] Ibid., 31.

in the rapidity of the mind's action, even these small fragments of full conceptions are encumbrances. It is too much trouble and loss of time to be obliged to translate the words even into the fragments—the smallest representatives of their mental significance; so these fragments themselves are finally dropped, at times, and perhaps most of the time, leaving nothing but the words themselves, the skeleton machinery of thought, and our thinking becomes wholly symbolical. Now, I venture the assertion that there is as much symbolical thinking outside of arithmetic and algebra as there is in them. From my own observations, I am of the opinion that ninety-nine hundredths of our thinking is symbolical; that, in ordinary conversation or oral discourse and reading, we see, and hear, and conceive of nothing but the words themselves, with only here and there a real conception, or fragment of a conception, into which some particular word is translated, or partly translated. You say: How is this possible? Easily enough; for everybody does it. Passing through the stages which we have described above (and sometimes without this gradual transition through intervening stages), the process ultimates in our transferring to the words themselves the relations which exist among the things that the words are merely the signs of; and what is, if possible, even more remarkable, the words so far take the places of the things they represent that they awaken in us emotions (more or less distinct) similar to those produced by the things themselves, or our conceptions of them. There is no difficulty, then, in understanding how we may read a whole page without having a single conception, picture, or image, in whole or in part, enter our imagination. The words themselves awaken the same or similar emotions, and carry with themselves the same relations to each other as the things which they stand for, and, therefore, our thinking is just as complete as it would be did we use the things themselves, or the fullest and most complete conceptions or images of them. This, so far as I know, is almost an unexplored, though a vast, department of mental science.[1] We do not pretend to do full justice to it here; but we have, perhaps, said enough to enable the reader to understand how this symbolical thinking may delude the Nominalist into the belief that the general idea is nothing but a name, a word, or at most a fragment of itself; and also how the Conceptualist may lay hold of a conceivable part of a process (a part which, unconsciously to himself, his mind has substituted for the whole process in the manner just described), and, mistaking that part for the whole, conclude that a general idea is conceivable.

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[1] Campbell's "Phil. of Rhetoric," B. 2, c. 1, s. 1.

Another cause, or perhaps we should say indication, of the indefiniteness and confusion of thought that prevail in reference to general terms and their real significance, is the fact that writers on this subject do not recognize the difference that exists between the process of classification and that of generalization, but seem to have a vague notion that the two are substantially one and the same thing, a general idea being to them nothing more than a class. The confusion of language, as a matter of course, corresponds with the confusion of thought on this subject, the same name being generally given to both the class and the general idea. Now, what does the process of classification consist of? We make a class by resemblances, of course. Here is a plain figure having three right sides, and there is another one having three right sides. I put the two together, and I have a class called triangle, to which I add every other plain figure having three right sides. I have thus made the class triangle, but I have never once had occasion to use the general idea, triangle, in the process; for I have only dealt with particular triangles, each one having its own determinate sides, its own determinate size, its own determinate angles, and its own determinate form, color, and relation of sides to angles; and yet all these determinate figures I put together—and this is classification. Now, what is the real significance of the word triangle, as applied to the class thus formed? It means *a collection* of *determinate*, *perceivable*, and *conceivable* triangles. But what does the process of generalization consist in? We will begin as we did before. Here is a plain figure having three right sides; it is right-angled, isosceles, six inches long, and is drawn with red chalk upon a white surface. I mentally strike out—disregard—negate the redness of its sides, its right angle, the equality of two of its sides, its six inches of length, and, in fact, everything special and peculiar about that triangle; and now I need go no further; I need no more examples, for I already have my general idea, which is also called triangle. But see what a different thing it is from the class triangle. It is something that is *formless*, *indeterminate*, *non-perceivable*, and *inconceivable;* and yet, in that confusion of thought to which I am trying to call attention, this general idea and the class are both called triangle. Triangularity would be a better term for the general idea; but the bare suggestion terrifies us with the possibility that it might open the gates to the entrance of "horseality," "dogality," "houseality," and an innumerable troup of similar uncouth and intolerable names claiming admission on the score of kinship to triangularity by similarity of genesis.

Another indication of the indefiniteness and confusion of thought that prevail in reference to general terms and general ideas is the confounding of the process of abstraction and that of generalization. To this point we shall return in its proper place, where we expect to show that a *general* abstraction is, in one sense, an impossibility except on the supposition that the general idea has already been attained, and, of course, attained by some other process (which can only be that of generalization); and therefore, the general idea being already in hand, it would be a work of supererogation to make a further effort to get by abstraction what we already have by generalization.

What I have thus far written as introductory is intended simply to show that the whole subject of general terms and their real significance, lies, at the present time, in a very helpless, hopeless, confused, unsettled, and indefinite state; and that we should, therefore, welcome any attempt to reduce it to an intelligible principle, and to determinate form and order.

In an article entitled "Time and Space considered as Negations," published in the "Journal of Speculative Philosophy" for October, 1879, I reached the following conclusion: "The principles of Affirmation and Negation are co-extensive with consciousness, and are the essential elements of all mental phenomena. All the phenomena of mind, from the simplest sensation up to the most complex intellectual operation, are but states of consciousness, simple and complex. Now, we have already seen that the simplest state of consciousness, if perpetual, would be no better than a state of perpetual unconsciousness. The latter would be tantamount to annihilation, and the former would be the same. Hence, the simplest form of consciousness or mental life must consist in an alternation of a state of consciousness with a state of unconsciousness—a regular rhythmical revelation of the affirmation, consciousness, by its negation, unconsciousness, and *vice versa.* We might call it a pulsation or an undulation of the constituent of the mind, provided such an expression did not fasten upon us a premature theory as to the nature of that constituent. . . . The simplest state of consciousness, therefore, has its dual elements—its affirmation and its negation; and as all other states of consciousness, even the highest and most complex, are aggregates of such simple states, and as the complex must retain the dual character of the simple, and, like the simple, must have its affirmative and negative elements, therefore affirmation and negation are the dual foundations of mental life, and the essential elements of all thought, feeling, emotion, and volition."

My "New Theory of Consciousness," which was published in the "Journal of Speculative Philosophy," July, 1880, was not an outgrowth from the article just quoted from; but it was suggested by, and was based upon, the current theory of atomic and molecular vibrations, their inevitable collisions and non-collisions constituting the conscious and the unconscious states of the atoms. Nevertheless, the conclusion reached in the first article, as quoted above, is also the necessary outcome of the second article, my "New Theory of Consciousness," although its appearance in the latter was wholly independent of its appearance in the former. In other words, the principle that all mental life consists in a regular rhythmical alternation of conscious and unconscious states, while it is the inevitable conclusion of the first article, and is also the necessary outcome of the second, was reached in the two cases by processes of reasoning and considerations wholly independent of each other. To this extent, therefore, the two articles sustain each other, and I cannot help having more confidence in the principle which is thus an outcome of two independent processes of reasoning than if it had been reached by either one alone.

The principle which we reached in the two articles above referred to, the importance of which we wish now to illustrate, thereby still more firmly establishing its truth, is contained in the following words of our article on "Time and Space considered as Negations": "Affirmation and Negation are the dual foundations of mental life, and the essential elements of all thought, feeling, emotion, and volition."

Here is a plain figure, six inches long, drawn in red chalk upon a white surface; it has three right sides, one right angle, and two acute angles, and two of its sides are equal. It is *a* triangle. There is another plain figure ten inches long, drawn in white chalk upon a black surface; it has three unequal right sides and three acute angles. It also is *a* triangle. All such particular three-sided plain figures are called triangles. Then *a* triangle is a plain figure, bounded by three right sides.

Now, what is *triangle?* Shall we define it in the same terms as *a* triangle? Let us see. Triangle is a plain figure—we are balked at the very outset, for triangle is not a figure at all, and, of course, it is not bounded by three sides. Could we define triangle and *a* triangle in the same terms, there would, of course, be no difference between them—no difference, in other words, between the universal-particular and the universal—between, as we might say, water and one of its constituents, oxygen. How, then, shall we define triangle? We must first find out what it is. I now show you again that three sided, right-angled, isosceles triangle, six inches long and drawn in red chalk upon a white surface; and I ask you whether that is triangle. You say, "No, that is *a* triangle, not triangle." I next show you the ten-inch triangle, drawn in white chalk upon a black surface, and having three unequal sides and three acute angles; and to my question, "Is that triangle?" you again say, "No, that is *a* triangle, not triangle." I show you another of a different size, color, and shape; and I show you a great number of three-sided figures, all of different colors, sizes, and relations of sides and angles; and in every case you say, "That is *a* triangle, not triangle." Then *I can never show you triangle.* It is something that can never be present to the sight, the touch, or any of the senses. It is a thing that cannot be perceived, and hence it cannot be conceived. But this only tells us what triangle is not, not what it is—that, whatever it may be, it is inconceivable, because non-perceivable.

. When I showed you that right-angled triangle, and to my question, "Is that triangle?" you said "No," yet back of that "No" was a secret, scarcely suppressed "Yes," as much as to say, "Well, you crowded me to say 'No' when I half meant 'Yes,' and, if triangle is not that right-angled triangle, it is, perhaps, some other triangle, for it surely is to be found somewhere." But when I showed you acute- and obtuse-angled triangles, isosceles, and equilateral triangles, large and small triangles, and triangles of different relations of sides and angles, in numbers infinite, you still kept pace with me with your "no, no, no" *ad infinitum*, and back of each "no" was the suppressed "yes," indicating your belief that it must be something pertaining to them—their shadow, perhaps, if not their substance. Then what have you done with all my nfinitude of triangles? To each one you have said, "Triangle is not that, yet it is something pertaining to that." You have negated all my particular triangles, and would have negated as many millions more as I chose to show you, saying of each, "Triangle is not —not that—not any particular triangle. It is the negation of your right-angled triangle, of your obtuse- and acute-angled triangles, of your isosceles and your equilateral triangles, of your large and your small triangles—the negation of everything that is special, peculiar, and characteristic about each and every possible, perceivable, or conceivable triangle."

How totally different, then, are the two definitions, that, namely, of *a* triangle and that of triangle! *A* triangle is a plain figure bounded by three sides; but *triangle* is the negation of everything that is special, peculiar, and characteristic about each and every possible, perceivable, or conceivable triangle. In brief, *triangle is the negation of a triangle.* We now understand why what is called the general idea, triangle, is a thing that cannot be seen or felt—why it cannot be perceived, and hence why it is inconceivable. It is because it is a mental process for the destruction of all that is perceivable or conceivable about any particular triangle—for the reduction of any particular triangle to one of its indeterminate, inconceivable elements. The process is the same, and brings the same result in all cases; hence triangle, the negation, is necessarily singular and universal. Now, although the negation, triangle, is inconceivable, yet, because it is always the same without variation and is always singular, it has a monistic simplicity and universality which are the foundation of all mathematical certainty in the demonstration of the relations of the various parts of a triangle, as we shall presently endeavor to show.

But are we sure that triangle (triangularity) is really a negation, Some of my readers may still have doubts upon this point, believing that, in order to get a negation, we ought to negate more than we have done—that, in leaving triangularity, we leave a positive element, which cannot be called a negation. Let us go back to our red-sided, right-angled triangle, six inches long, and having two of its sides equal. I negate the redness of its sides, I negate its right angle, I negate the acuteness of its two other angles, I negate its length, and I negate the equality of two of its sides. Have I not negated everything that it is possible to negate? If I have omitted anything, let the reader negate that also; and what residue will be left in consciousness but triangularity? But why not now negate that also? Simply because if I negate that, or banish that from consciousness, the residuum in consciousness will not be the negation of that triangle nor of any triangle. It will be simply nothing, or the negation of everything. Now, negations are as different from each other as affirmations are from each other; but, if, in negating a particular triangle, I must banish triangularity from consciousness, then, in negating a circle, I must banish roundness, and, in negating a square, I must banish squareness from consciousness; then there would be no difference between the negations of a triangle, a circle, and a square; there would not be, in either case, any mental element left to relate the negation to its proper affirmation—nothing to indicate which is the negation of the triangle, which that of the circle, and which that of the square. Such is not the case with the undisputed negations. We never confound silence as a negation with darkness; and there is no danger of our calling silence the negation of light, or darkness the negation of sound. Every negation, to be a negation, must have an import which relates it to its proper affirmation. Such is triangularity as the negation of a triangle; and, without that, a triangle would have no negation.

Then the general idea, triangle, is a negation; and, of course, what is true of triangle is true of all general ideas; they are negations.

The sum of the three angles of a triangle is equal to two right angles. This is a proposition to be demonstrated. I draw a triangle, and prove that the three angles of that particular triangle are equal to two right angles. I draw another, and show that the same is true of that also; and I may draw an infinite number of particular triangles of different sizes and of different relations of sides and angles, and of each one I may prove the truth of the given proposition; but, as I can never exhaust the infinitude of possible triangles, all differing from each other, I may continue applying my demonstration to particular triangles forever without reaching that universality which must be reached before the mathematical demonstration is completed. Now, the particular demonstration is made universal by transferring it to the only thing which is, or can be, universal—namely, the negation of the particular triangle. This last step in the demonstration is regarded as so easy and simple that it is usually omitted from all demonstrations, it being either taken for granted or stated once for all. If expressed, however, it would be something like this: "We have now shown that in this triangle the sum of the three angles is equal to two right angles; but that is nothing peculiar or characteristic of the triangle before us, and it is therefore true of all triangles." Now, while the geometrician makes this last step in the process as easily and as surely as he would say that the whole is greater than a part, yet the *explanation* of the ease and surety of the step, and of the apodictic certainty and universality of the conclusion, can only be given when we have solved that puzzling question of the centuries, "What are general ideas?" That explanation is this: when the proposition is proved to be true in the particular triangle used, that triangle is negated, *and the proposition abides with the negation*—the triangularity. Now, the negation of all triangles is the same one thing—triangularity; and hence all propositions that are true of it, or, we should say, that abide in it, are universally true.

From what has been said, it is evident that the universality of all geometrical propositions is dependent upon negations. It is, moreover, hardly necessary to remind the reader of the fact that the absolute certainty, even of particular geometrical demonstrations, is also dependent upon negations; for, without the negations, point and line, with which all geometrical figures and diagrams are theoretically constructed, there could be no absolute certainty in any particular demonstration.

The whole science of arithmetic rests upon that element of thought of which the word *one* and the figure 1 are our signs. When I say of any particular object that it is one house, one tree, one pound, one dollar, it is, of course, not the house, the tree, the pound, or the dollar that is one, any more than *a* triangle is triangle. *One*, like triangle, is something which cannot be seen or felt, or in any way perceived or conceived. The negation of any and every particular object, considered as a single object, leaves, as a residue in consciousness, simply the numerical value of the single object, or, in other words, leaves the negation, one. The arithmetical one, therefore, being a negation, has that monistic simplicity and invariableness which characterize all negations as compared with the endless variety and changeableness of affirmations. All ones, then (if we may use the plural), are absolutely, necessarily, and universally equal; or, more correctly (since there can be but one *one* as a negation), the negation, one, is absolutely, necessarily, and universally equal to itself, or identical with itself.

Now, the whole of arithmetic proceeds from this negation, one; and without it there could be no arithmetic as a mathematical science. The import of *one* being determined, and its symbol agreed upon, the next step in arithmetic is the defining and symbolizing the other numbers — thus: $1+1=2$; $1+1+1=3$, and so on. Then come the propositions, which may be stated either in the form of problems, as, for instance, "to find the value of $3+2$"; or of theorems, as, for instance, "$3+2=5$," the demonstration of which is as follows: $3+2=3+1+1$; but $3+1=4$ by definition, therefore $3+1+1=4+1$; but $4+1=5$ by definition, therefore $3+2=5$.

Similarly the whole science of algebra rests upon a negation with its several symbols, x, y, z, etc.

Therefore, the certainty and universality of all mathematical propositions rest upon negations.

It is said that "notions without perceptions are void, and perceptions without notions are blind." Such metaphorical forms of expression are excusable when, as heretofore in this case, the subject treated of has not been reduced to a principle that can be clearly and distinctly formulated in scientific language. In such cases, the best that can be done in discussing the subject, is to illustrate it, and talk at it, and around it, and about it, and thus give as clear an understanding of it as can be done in the absence of a knowledge of the principle to which it may be reduced. If, instead of the above illustrative, figurative form of expression, we substitute the following law, there is certainly an immense gain in clearness and precision of thought and language. *Perceptions and notions determine each other.* From this it follows that the one without the other is indeterminate, and, because indeterminate, non-perceivable and inconceivable. Now, if we reduce this law of the subject to some general principle or principles, the whole matter is then put into scientific form. That general principle is the principle of Affirmation and Negation, namely: *Affirmations and Negations determine each other;* and this is brought under the still more general principle that *Consciousness and Unconsciousness determine each other.*

Now, is our law true? Is it true that perceptions and notions (general ideas) determine each other? We have endeavored to show that general ideas are negations, and, as such, are indeterminate. We shall now endeavor to show that perceptions, considered by themselves, are also indeterminate; and that these two indeterminates determine each other. Should we succeed in showing that general ideas (notions) and perceptions do thus conform to the law of Affirmation and Negation, it will be confirmatory evidence of the truth of our theory that general ideas are Negations.

Something lies before me in the field of my vision—but that is already saying too much; for, in saying that something lies *before me*, or *in the field of my vision*, I have already defined or determined, partially at least, that which in its real nature is, as we shall see, indefinite and indeterminate. If I have already recognized that it is *before* me, or *in the field of my vision*, I have already taken the initiatory steps toward making it a thing perceived and to that extent determined, and hence an object, instead of that element of an object which we wish to get at—that chaos of unrelated sensations which, as *sensations*, are wholly subjective, and therefore have no *before* or *behind* to them, and are never *in a field of vision.* With this check upon our thoughts, we will change our illustration.

You and I are looking in the same direction. You see upon the blackboard a right-angled isosceles triangle, six inches long, two of its sides being drawn with white chalk, and the third one with red. I, having as good eyesight as yourself, and looking in precisely the same direction, do not perceive that triangle at all.

With my eyes turned toward the blackboard, I sit gazing thoughtlessly into vacancy, and the colors, lights, and shades from that triangle, pouring continuously into my eye, fall upon the retina, and cause a great variety of sensations or impressions. I am just conscious enough, or unconscious enough, to realize a dim blur of impressions made by the different colors, lights, and shades; but it would be saying too much to say that I am conscious of the colors, lights, and shades as differing from each other, or as at all related to each other into lines or forms; in short, I have simply a great number of unrelated sensations, or of detached units of consciousness. That triangle is so plain to you; yet whatever of it lies upon my consciousness is but an indefinite, indeterminate something, non-perceivable, and hence inconceivable, until I add to it that which is not an essential part of its constitution. I cannot perceive it without making it a unit; but to make it a unit is to put its parts into relation with each other, whereas the very essence of its present nature to me is the non-relation of its parts; and so it must continue to be to me until I put into it, or find in it, or conjoin with it, another element which shall define and determine it, and thus make it perceivable and conceivable. That other element is triangularity—that negation which, as we have already seen, is also indeterminate, non-perceivable, and inconceivable. The general idea, then, conforms to the law of affirmation and negation, and thus gives us an additional assurance that it is itself a negation.

It will, perhaps, be said that my negation is simply an abstraction, and that I have, therefore, merely given a new name to an old thing. There is, however, something more than a mere name involved in this matter. All real abstractions are abstractions of particulars, that is, of determinate things—an abstraction of an indeterminate thing such as a general idea, in the first instance, being an impossibility. An abstraction presupposes that we already have in hand the thing to be abstracted. Then to abstract a general idea we must already have the general idea before the mind; in other words, the mind must already be in possession of the very thing that it is trying to attain—must use the *end* as a *means* to attain the *end*. This is an impossibility. The general idea, therefore, before it can be abstracted, must be attained by some other process besides that of abstraction. Now, the only other process possible is that of negation—the rejecting of the particular determinate things until nothing more can be rejected, leaving the general idea, the negation, as the only residuum in consciousness.

An *ultimate* is that which has not proceeded from anything else—that which has no *genesis*. *Things* are procedures from ultimates. *Science* is the ascertained relations of things. Philosophy is the ascertained relations of ultimates; or, we may say, *philosophy is the science of ultimates.*

Only a *monistic* cosmical theory can give us a genesis of things, and thus enable us to escape the insuperable difficulties which attend any theory of two or more different cosmical ultimates which must be supposed to have been, in the outset, dovetailed and fitted into each other either by an amazing accident or by an equally amazing design—a pre-established harmony. And this, its eems to me, is a fatal objection to Kant's Time, Space, and Categories. If they are procedures, or, in other words, if they have a genesis, they are not *a priori;* if, on the other hand, they have no genesis, if they have not proceeded from some common source, then they are different ultimates, and, as such, have no relation to each other, and can never by any possibility be brought into relation to each other. This is the hidden weakness of Kant—this complex system of implied pre-established harmonies between things which can only be *a priori* by being unrelated and unrelatable.

If, as we have said, only a monistic cosmical theory can give us a genesis of things, and thus enable us to escape the insuperable difficulties that must attend any theory of two or more different cosmical ultimates, yet even a monistic theory, which takes in only one half of nature—the positive side—and neglects the equally important negative side—the realm of negations—must soon become entangled in difficulties equally insuperable. Negations have an equal claim with affirmations upon the attention of the philosopher. The moment he crosses the threshold of the great temple of nature, as a philosopher, while he may be dazed by that brilliant trail of the light, and the life, and the beauty, and the harmony of realities infinite, in processions and procedures interminable upon his right, he is appalled at the sight of those awful shadows upon his left—Unconsciousness, Time, Space, Cause, Universals—those spectral forms that will neither "down" nor "out"—those ghosts of realities that have been the terror of philosophers in all ages, standing forever there, dumb, silent, stolid as the sphinx, a perpetual defiance to the most royal heads that have ever entered the temple; but which, when approached more closely, are found to be naught but harmless ghosts and shadows—mere skeleton negations of the living realities.

A POPULAR STATEMENT OF IDEALISM.

BY WILLIAM M. SALTER.

II.

In Goethe's tragedy, after Faust has pronounced his successive curses on ambition, mammon, hope, faith, and patience, the chorus of spirits laments:

"Woe! woe!
Thou hast it destroyed,
The beautiful world."

They will not, however, give him over to despair, and turn upon him with divine cheer:

"Mightier
For the children of men,
Brightlier
Build it again
In thine own bosom, build it anew!"

It would be straining a comparison to say that we shall now attempt to do for the sensible world what Faust was summoned to do for the world of human aims and passions, which he had so rudely destroyed. For, in truth, the idealist has not destroyed the sensible world, nor sought to, but only the notion, so sedulously cherished by many, of its separateness from ourselves. And, if he had destroyed it, it would be quite beyond his power to build it again. For we do not create our sensations, nor can we. We do not think of color, and then by an act of will make it stand before our eyes. We cannot conjure up harmonies of sound and then